ETF Market Review & Outlook Report

ETFs have proven their worth once again with inflows in 2022, and as effective portfolio building blocks, and efficient trading tools. We saw challenging markets across both equities and fixed income, leading investors to be active with asset allocation decisions and adding new exposures to portfolios. The depth of the ETF product market, as well as the trading maturity of leading ETFs, has meant that investors have relied on ETFs even more to reposition portfolios.

The rise of inflation numbers not seen in a generation, and the subsequent rise in interest rates including reactive central bank activity, drove bond yields higher and impacted equity valuations, particularly for growth stocks valued on future cash flows. Commodity and dividend based equities then held up better, while investors rotated away from the mega-cap new technology stocks that had driven returns in prior years. As well the war in Ukraine combined with fears of an economic slowdown, caused markets to turn and investors to become more defensive. All in all, a highly volatile year with many market drivers.

In Canada, over 150 new ETFs were added in 2022, we're now close to 1300 tickers.[1] This has meant more choice for investors, even as the established mature ETFs continued to deliver for investors as easy to use, low cost, and efficient solutions.

Global ETF flows in 2022

Mckenzie Box,
Director, Product, BMO ETFs

Global ETF net inflows in 2022 surpassed US$861 billion, down from previous years, primarily due to rough markets.[2] At the end of December 2022, the global ETF industry had 9,535 ETFs from 642 providers on 79 exchanges, and assets of US$9 trillion.[2] The U.S. continues to have the largest share of ETF assets with US$6.5 trillion, and despite market uncertainty saw net new flows of US$610 billion, the second highest year on record.[2] The European ETF market ended the year with US$1.3 trillion in total assets and Asia (ex-Japan), was the only region to grow assets this year crossing US$566.6 billion in total assets.[2]

In 2022, the Canadian ETF industry reached $314 billion in assets, and $35 billion in net new flows.[1] Ten ETFs reported more than $1 billion in new flows, 153 new ETFs were launched, with two new providers entered the industry.[1] There are now 1,299 tickers and 42 ETF providers. BMO ETFs led the industry for the twelfth consecutive year with net new flows of $8.4 billion.[1]

In Canada, investors gravitated towards defensive trades where aggregate bonds and cash alternatives captured a large portion of fixed income flows. Fixed income ETFs set a record bringing in $19 billion in flows, accounting for 54% of total flows.[1] Despite the sell off, equity flows remained positive, bringing in $13 billion.[1] Investors looked to more defensive sectors to help position their portfolios. At the ticker level, net new flows were dominated by cash alternatives and broad market fixed income ETFs, as investors have recognized the appeal of ETFs through diversification, liquidity, and efficient access. With inflation concerns, investors focused on short to medium term duration with large flows going into **BMO Short Federal**

Continued

Bond Index ETF (ticker: ZFS) and **BMO Mid Federal Bond Index ETF (ticker: ZFM)**.

Even as new products arrive, core ETFs remain the backbone of the ETF industry, with the largest ETFs representing broad equity exposures, including **iShares S&P/TSX 60 ETF (ticker: XIU)** and **BMO S&P 500 Index ETF (ticker: ZSP)**. Both ETFs were through $10 billion in assets at various times during 2022. Core ETFs are easy to use building blocks, delivering market returns, critical to asset allocators and institutions.

Inflation: A Look Ahead

Alfred Lee,
Director, Portfolio Management, BMO ETFs

As we start the new year, inflation continues to be the key metric that investors are focused on. While the Bank of Canada (BoC) and the U.S. Federal Reserve (Fed) are not out of the woods yet, the year-over-year consumer price index (CPI) from both countries, while still well above the long-term targets of each central bank, are trending in the right direction. Companies reporting a build up in goods inventory, U.S. mortgage demand at more than 20-year lows and declining raw material costs are all leading indicators that disinflationary forces are underway. This may give reason for the BoC and the Fed to pause interest rate hikes in early 2023, depending on the inflation prints. The inversion of the yield curve also limits how many further rate hikes can be absorbed by the economy. The eventual dialing back of monetary policy should be constructive for risk assets, though defensive tilts will likely be favoured given the recessionary concerns and higher sustained interest rates. With the ongoing war between Russia and Ukraine, it's likely we will see structural inflation persist specifically in energy and agriculture. Sector or thematic ETFs targeting these exposures, such as the **BMO Equal Weight Oil & Gas Index ETF (ticker: ZEO)** and the new **BMO Global Agriculture ETF (ticker: ZEAT)** should be effective complements to a portfolio.

Higher interest rates and improving real rates will be a positive for fixed income. While decreasing inflation is likely the longer-term trend for 2023, China moving away from its zero-COVID policy is the more immediate unknown. As the second largest economy in the world finally emerges from lockdown however, inflation may become volatile in the short-term as demand will likely come back online faster than supply. Investors can address inflation volatility in bonds or inflation print surprises through the B**MO Short-Term U.S. TIPS Index ETF (ticker: ZTIP**) or the **BMO U.S. TIPS Index ETF (ticker: TIPS)**, depending on their view on longer term interest rates, which can be used to complement traditional fixed income exposures. Listed in 2021, ZTIP finished the year at $294 million in assets, as investors looked to add inflation protection to their fixed income portfolios.[3]

Factors: Defense in Favour

Chris Heakes,
Director, Portfolio Manager, BMO ETFs

2022 was no doubt a challenging year across asset classes, however defensive equity factors were resilient versus broad benchmarks. Surprisingly, low volatility factors proved very effective as **BMO Low Volatility Canadian Equity ETF (ticker: ZLB)** returned -0.4% versus the S&P/TSX Composite Index return of -5.8%.[3] In the U.S., the performance benefit of low volatility was even more stark with the **BMO Low Volatility US Equity ETF (ticker: ZLU)** returning +8.0% versus the S&P 500 Index (Canadian Dollar return) return of -12.2%.[3] Dividend paying equities, in particular blue-chip quality dividend payers, also performed well in contrast to broad markets. Both **BMO US Dividend ETF (ticker: ZDY)** and **BMO International Dividend Hedged to CAD ETF (ticker: ZDH)** provided positive returns for the year, returning +2.2% and +2.8% respectively.[3] These powerful results reinforce the potential of factor investing to add value to portfolios. Despite the strong relative performance, low volatility and dividend factors only had net inflows of $35 million and $181 million respectively, as investor uncertainty with markets led to cash on the sidelines.[1]

With economic concerns spilling over into 2023, including higher interest rates and inflation, as well as signs of economic slowdown, a prudent allocation to defensive factors such as low volatility and dividend strategies may still prove effective. These strategies tend to focus on companies in more defensive sectors (low volatility), and companies with mature cash-flow generating profiles (dividends), both of which have the potential to add value in difficult markets. On the other hand, long-term investors may consider also balancing out defensive factors with a weighting to more constructive factors such as value with ETFs like **BMO MSCI Canada Value Index ETF (ticker: ZVC)**. Should a soft landing be achieved by the central banks, that may provide the seeds for future equity growth. Overall, having a balanced factor profile in portfolios increases diversification and portfolio robustness, and can help investors achieve better long-term portfolio outcomes.

Continued

Sectors: Energy Stands Apart

Chris McHaney,
Director, Portfolio Management, BMO ETFs

After a strong year in 2021, energy remained in focus during 2022. The Russian incursion into Ukraine caused a spike in oil prices to levels not seen since 2008 and raised concerns about global energy supply. The subsequent efforts by Western European nations to reduce their dependence on Russian oil and gas caused prices to remain high through much of the year. Looking ahead to 2023, demand for energy is expected to increase, as China moves away from its zero-COVID policy. **BMO Equal Weight Oil & Gas Index ETF (ticker: ZEO)** was the highest returning BMO ETF in 2022, returning 39.5%.[3] For investors who expect growth may moderate in this sector, **BMO Covered Call Energy ETF (ticker: ZWEN)** offers energy exposure with a covered call overlay to provide more of a focus on regular cash flow.

Most developed nations are expected to see an economic slow down in 2023, as global central banks may continue to raise interest rates to battle inflationary pressures. Whether a recession takes hold or not, global economic growth is expected to decline in 2023. Equity investors looking for a safe home for their cash in such an environment can look to **BMO Global Consumer Staples Hedged to CAD Index ETF (ticker: STPL)** as a potential solution. Consumer staple stocks tend to have an element of downside protection, as their businesses are generally less exposed to the economic cycle and can generate profits in various market environments.

Despite market uncertainty, the financial sector received the most net inflows in 2022, bringing in $407 million.[1] Canadian investors remain confident in our banks both as a source of income and growth.

Equity Growth ETFs: A Year of Challenges

Mark Raes,
Managing Director, Head of Product, BMO ETFs

Equity valuations were hit hard in 2022, particularly growth equities reliant on future cashflows that are now discounted at higher interest rates. After the COVID correction in 2020, many of these new economy stocks had enjoyed massive run ups, concerns on valuations entering 2022 were only accelerated with inflation prints that many of us had never experienced.

At the same time, higher interest rates and inflation has also meant that investors need to maintain equity growth to fund their goals, compounded by the negative returns of growth stocks in 2022. Investors may opportunistically look for entry points in 2023, to deploy cash on the sidelines or add more aggressive ETFs. This hinges on slowing inflation and could have starts and stops along the way.

The global ETF most known for accelerated growth is **ARK Innovation ETF (ticker: ARKK)**, which despite being down 67.0% (U.S. Dollar return) in 2022 still had positive net inflows for the year.[3] BMO ETFs partnered with ARK Invest in late 2022 to list three growth mandates in Canada, including the flagship innovation strategy, **BMO ARK Innovation Fund (ticker: ARKK)**.

Another well known growth exposure is the **BMO Nasdaq 100 Equity Index ETF (ticker: ZNQ)** which returned -28.1% (Canadian Dollar return).[3] As this ETF holds the 100 largest non-financial listings on the NASDAQ exchange, there is limited overlap with ARKK, leading to different outcomes. As well, currency hedging made a significant difference in 2022, as the U.S. Dollar appreciated by 6.7% against the Canadian Dollar, leading unhedged ETFs to outperform.[3] The depth of currency options within the Canadian ETF market is another source of convenience and choice for investors.

Continued

Listed Real Assets: Finding Alternative Performance

Vishal Bhatia,
Director, Portfolio Management, BMO ETFs

Against that backdrop of 2022 markets, listed global infrastructure outperformed broad equities. With investors benefiting from the liquidity of ETFs combined with the look through exposure to real assets, **BMO Global Infrastructure Index ETF (ticker: ZGI)** provides diversified exposure to pure-play global listed infrastructure companies – i.e. owner/operators of critical infrastructure assets – and returned 4.8% over 2022.[3]

This outperformance was attributable to attractive valuations for infrastructure assets that are often governed by long-term contracts with built-in inflation pass-through mechanisms. The inelastic demand associated with the services provided by infrastructure assets, such as toll bridges, wireless communication towers, and electricity transmission, result in highly predictable and consistent cash flows. These characteristics bolstered the appeal of listed infrastructure assets in 2022.

Looking forward to 2023, the same attributes which allowed listed infrastructure to fare so well in the previous year of market turmoil – consistent cash flows contributing to income-driven total returns, resilience in inflationary environments and low correlation with traditional assets - should position it well in case of further market uncertainty.

The long-term secular investment themes driving increased investment and growth in listed infrastructure including global decarbonization initiatives and the rise of the digital economy will be persistent tailwinds for the asset class for many years to come. Global de-carbonization efforts will necessitate the replacement of existing aging infrastructure and the development of new, sustainable infrastructure, and the infrastructure companies across each sector will play a role in achieving this ambitious but worthy goal. On the digital economy front, its future growth will depend on how quickly and effectively the enhanced communications infrastructure to meet the globe's increasing appetite for interconnectedness and wireless data can be established.

Fixed Income: A Reset Year

Matt Montemurro,
Director, Portfolio Management, BMO ETFs

We are starting to see CPI in the U.S. and Canada trend lower. The bad news is the inversion in the yield curve indicates recessionary forces. The good news is bonds exchanging hands at lower yields on the long end of the curve means investors believe inflation will eventually be contained; otherwise, they would demand higher yields to compensate them for taking on the term risk.

The ongoing conflict in Ukraine will keep supplies in energy and food tight, which will lead to some structural inflation to persist. However, tighter monetary conditions and continued supply-side healing will continue to cool inflation. As such, both the BoC and the Fed may pause interest rate hikes in 2023. We also see concerns of an economic slowdown to eventually overtake those of inflation in mid-2023. Having said that, the question now becomes, does the Fed eventually cut rates at some point in 2023?

We view the recent rise in rates, though painful on asset markets, as a much needed recalibration, especially for the bond market. The era of zero interest rate policies (ZIRP) and quantitative easing is over, as we transition to back to a regime of moderate growth and bonds are meaningful income contributors. We continue to advocate for barbells, where we overweight investment-grade credit on the short end **BMO Ultra Short-Term Bond ETF (ticker: ZST)** and **BMO Short Corporate Bond Index ETF (ticker: ZCS)** to better manage credit risk. This is complemented with exposure

Continued

to government bonds on the long end to position for a slower economy with **BMO Long Federal Bond Index ETF (ticker: ZFL)** or **BMO Long-Term US Treasury Bond Index ETF Hedged Units (ticker: ZTL.F)**.

While managing duration risk has been the primary focus for bond investors over the year, managing credit risk will become increasingly more important as we forge ahead in 2023. Higher-quality investment-grade issuers will be better positioned than those of sub-investment grade, such as **BMO High Quality Corporate Bond Index ETF (ticker: ZQB)**. As rates rise, investors can now get a much more attractive yield by staying in investment grade. The higher cost to now borrow via higher interest rates and higher spreads could lead to high yield bond defaults.

For 2022, cash ETFs and aggregate exposures led the way with $1,755 million and $1,521 million in net inflows, as turbulent markets led investors to the sidelines or into broad ETFs.[1] Short term bonds were very much in favour as the yield curve rose, with $1,525 million in net inflows.[3] With higher yields heading into 2023, bond ETFs are better positioned for future volatility.

Balanced ETFs: Convenient Solutions

Erin Allen,
VP, Online ETF Distribution, BMO ETFs

Investors continue to recognize the benefits of Balanced ETFs, which brought in $1.8 billion in total flows last year.[1] The simplicity of a low cost, all-in-one solution appeals to investors of all types, but specifically do-it-yourself investors who do not have the time or resources to trade and rebalance their portfolios as markets move over time. Asset allocation ETFs launched in Canada in 2018 and have gathered over $15.7B in total assets as of year end.[1]

We have seen investors evaluating the effectiveness of their asset mix, in a challenging year of both equity and fixed income market declines. Both the 60/40 portfolio and the 80/20 portfolio (equity to fixed income) are collecting significant assets through the reset of the fixed income market. As we now have more normalized interest rates, from marginal yields during the Pandemic, we can expect the traditional 60/40 balanced portfolio to strengthen and remain a valuable approach to investing over the long term.

As investors look for portfolio construction vehicles to navigate market uncertainty, Balanced ETFs offer diversified solutions based on risk tolerance and income needs. BMO ETFs recently launched an innovative solution, T Units, which like the popular mutual fund strategy T6, draws on investments for 6% annual distribution monthly providing predicable monthly flow – **BMO Growth ETF (Fixed Percentage Distribution Units) (ticker: ZGRO.T)** and **BMO Balanced ETF (Fixed Percentage Distribution Units) (ticker: ZBAL.T)**. For investors reaching retirement, or with funding needs, these tickers deliver convenient cash flow on top of the benefits of ETFs.

The Path Ahead

Mark Raes,
Managing Director, Head of Product (Canada), BMO ETFs

The growth trajectory of ETFs continues unabated, despite turbulent markets. Periods of volatility have proven to be a validation of ETFs, both as a strategic holding and as tactical trades to navigate markets. The depth of ETF offerings, across asset classes and geographies, as well as the maturation of Canadian ETFs for effective trading, combine to be validation points for ETFs.

At over $300 billion in assets, the Canadian ETF industry has matured to be a staple in investors portfolios, while the size of the global ETF industry indicates there is still significant room to grow. The Canadian ETF market doubled in size over the past five years, making it easy to look ahead to $500 billion in assets in around 3 years. Volatile markets in 2008, 2020, and now 2022 have demonstrated the value of delivering exposures with ETFs and using ETFs to pivot portfolios and continues to attract new users.

Continued

Fund Performance – as at December 31, 2022

ETF Name	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date
BMO Low Volatility Canadian Equity ETF (ticker: ZLB)	-0.37%	7.55%	8.06%	11.42%	11.81%	Oct. 21, 2011
BMO Low Volatility US Equity ETF (ticker: ZLU)	7.98%	9.99%	11.68%	–	14.92%	Mar. 19, 2013
BMO US Dividend ETF (ticker: ZDY)	2.27%	6.06%	7.72%	–	12.97%	Mar. 19, 2013
BMO International Dividend Hedged to CAD ETF (ticker: ZDH)	2.82%	3.51%	3.98%	–	6.34%	Sep. 2, 2015
BMO Equal Weight Oil & Gas Index ETF (ticker: ZEO)	39.46%	17.85%	7.22%	2.66%	2.05%	Oct. 20, 2009
BMO Global Infrastructure Index ETF (ticker: ZGI)	4.77%	5.85%	8.13%	10.53%	11.70%	Jan. 19, 2010
BMO Nasdaq 100 Equity Index ETF (ticker: ZNQ)	-28.00%	9.64%	–	–	12.99%	Feb. 15, 2019

BMO Exchange Traded Funds

[1] NBF Research and Strategy, Canadian ETF Flows, December 2022.
[2] ETFGI Global ETF and ETP industry insights, December 2022
[3] Bloomberg, December 31, 2022

Disclaimers:

The viewpoints expressed represents their assessment of the markets at the time of publication. Those views are subject to change without notice at any time without any kind of notice. The information provided herein does not constitute a solicitation of an offer to buy, or an offer to sell securities nor should the information be relied upon as investment advice. Past performance is no guarantee of future results. This communication is intended for informational purposes only.

Any statement that necessarily depends on future events may be a forward-looking statement. Forward-looking statements are not guarantees of performance. They involve risks, uncertainties and assumptions. Although such statements are based on assumptions that are believed to be reasonable, there can be no assurance that actual results will not differ materially from expectations. Investors are cautioned not to rely unduly on any forward-looking statements. In connection with any forward-looking statements, investors should carefully consider the areas of risk described in the most recent prospectus.

The Index is a product of S&P Dow Jones Indices LLC or its affiliates ("SPDJI"), and has been licensed for use by the Manager. S&P®, S&P 500®, US 500, The 500, iBoxx®, iTraxx® and CDX® are trademarks of S&P Global, Inc. or its affiliates ("S&P") and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"), and these trademarks have been licensed for use by SPDJI and sublicensed for certain purposes by the Manager. The ETF is not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of the Index.

Nasdaq® is a registered trademark of Nasdaq, Inc. (which with its affiliates is referred to as the "Corporations") and is licensed for use by the Manager. The ETF has not been passed on by the Corporations as to their legality or suitability. The ETF is not issued, endorsed, sold, or promoted by the Corporations. **The Corporations make no warranties and bear no liability with respect to the ETF.**

The ETF referred to herein is not sponsored, endorsed, or promoted by MSCI and MSCI bears no liability with respect to the ETF or any index on which such ETF is based. The ETF's prospectus contains a more detailed description of the limited relationship MSCI has with the Manager and any related ETF.

Commissions, management fees and expenses (if applicable) all may be associated with investments in BMO ETFs and ETF Series of the BMO Mutual Funds. Please read the ETF facts or prospectus of the relevant BMO ETF or ETF Series before investing. BMO ETFs and ETF Series are not guaranteed, their values change frequently and past performance may not be repeated.

For a summary of the risks of an investment in the BMO ETFs or ETF Series of the BMO Mutual Funds, please see the specific risks set out in the prospectus. BMO ETFs and ETF Series trade like stocks, fluctuate in market value and may trade at a discount to their net asset value, which may increase the risk of loss. Distributions are not guaranteed and are subject to change and/or elimination.

BMO ETFs are managed by BMO Asset Management Inc., which is an investment fund manager and a portfolio manager, and a separate legal entity from Bank of Montreal. ETF Series of the BMO Mutual Funds are managed by BMO Investments Inc., which is an investment fund manager and a separate legal entity from Bank of Montreal.

BMO Global Asset Management is a brand name under which BMO Asset Management Inc. and BMO Investments Inc. operate.